

AMENDMENTS TO THE DRAWINGS:

The replacement sheets in the Appendix include changes to Figures 1-2. In Figures 1-2, the previously omitted designation "Prior Art" has been added.

REMARKS

The drawings have been amended to make editorial changes therein.

The indication that claims 13-26 have been allowed and that claims 5, 7, 10, and 12 include patentable subject matter is acknowledged with thanks.

The Official Action objects to the form of claim 6 and rejects claims 3-4, 9, and 11 under §112, second paragraph. These claims have been amended as to form and reconsideration and withdrawal of the objection and rejection are respectfully requested.

Claims 1-2, 6, and 8 were rejected as unpatentable over TAMEGAYA 6,295,630 in view of SUGANO et al. 6,734,501. Reconsideration and withdrawal of the rejection are respectfully requested.

The Official Action indicates that TAMEGAYA discloses an AC component measurement circuit for measuring an AC component of a current flowing between a source and a drain of the MOSFET when the AC input signal is superimposed to the gate. However, this is not correct; the reference does not disclose measurement of an AC component flowing between a source and drain when the AC input signal is superimposed to the gate. By contrast, the reference discloses (column 11, lines 20-35) measurement of the current flowing through a region between the gate and the substrate or through a region between the gate and the well.

There is no mention of measurement between the source and drain. There also is no mention of making this current measurement when the AC input signal is superimposed to the gate. One of skill in the art would not learn from TAMAGAYA that the AC component is to be measured as claimed in claim 1.

SUGANO et al. also do not disclose or suggest measuring the AC component between the source and drain. The Official Action refers to column 3, lines 1-40, but this section does not disclose the claimed measurement. Further, the section notes that the results were obtained through a simulation (column 3, line 14), not by making actual measurements.

The Official Action acknowledges that TAMAGAYA fails to teach the mutual conductance calculation circuit of claim 1 and relies on SUGANO et al. (column 1, lines 10-20 and column 3, lines 1-40) for the suggestion to include this circuit. However, SUGANO et al. do not disclose or suggest that the circuit calculate the mutual inductance from the ratio of the amplitude of the AC component of a measured current to the amplitude of the AC input signal. SUGANO et al. simulate the result and do not make the calculation from the ratio of measured values as claimed (column 3, line 14). One of skill in the art would learn from SUGANO et al. how to modify the circuit in TAMAGAYA to make the calculation of mutual conductance as in claim 1.

Claim 8 is allowable for similar reasons. TAMAGAYA does not disclose an AC component measurement circuit for

measuring an AC component of a current flowing between a source and a drain of the MOSFET when the AC input signal is superimposed to the drain. By contrast, the reference discloses (column 11, lines 20-35) measurement of the current flowing through a region between the gate and the substrate or through a region between the gate and the well. There is no mention of measurement between the source and drain. There also is no mention of making this current measurement when the AC input signal is superimposed to the drain. One of skill in the art would not learn from TAMAGAYA that the AC component is to be measured as claimed in claim 8.

SUGANO et al. also do not disclose or suggest measuring the AC component between the source and drain. The Official Action refers to column 3, lines 1-40, but this section does not disclose the claimed measurement. Further, the section notes that the results were obtained through a simulation (column 3, line 14), not by making actual measurements.

The Official Action acknowledges that TAMAGAYA fails to teach the drain conductance calculation circuit of claim 8 and relies on SUGANO et al. (column 1, lines 10-20 and column 3, lines 1-40) for the suggestion to include this circuit. However, SUGANO et al. do not disclose or suggest that the circuit calculate the drain inductance from the ratio of the amplitude of the AC component of a measured current to the amplitude of the AC input signal. SUGANO et al. simulate the result and do not make

the calculation from the ratio of measured values as claimed (column 3, line 14). One of skill in the art would learn from SUGANO et al. how to modify the circuit in TAMAGAYA to make the calculation of mutual conductance as in claim 8.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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APPENDIX:

The Appendix includes the following items:

- replacement drawing sheets for Figures 1 and 2